

Message Text

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DRAFTED BY: ERDA:BRIAN C. BELANGER

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FM SECSTATE WASHDC

TO AMEMBASSY MOSCOW

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E.O. 11652: N/A

TAGS: TECH, ENRG, UR

SUBJECT: ENERGY AGREEMENT: SUPERCONDUCTING POWER TRANSMISSION

REF: MOSCOW 1135

REQUEST EMBASSY DELIVER FOLLOWING MESSAGE TO DR. LEVITOV AT
KRZHIZHANOVSKY INSTITUTE FROM DR. BRIAN BELANGER AT ENERGY
RESEARCH AND DEVELOPMENT ADMINISTRATION.

WE LOOK FORWARD TO PROPOSED VISITS OF US EXPERTS IN HIGH VOLTAGE
TECHNOLOGY AND FLUID FLOW TO SOVIET UNION IN MARCH; HOWEVER, WE
REGRET THAT SUGGESTED STARTING DATE OF MARCH 2 PRESENTS DIFFICULTIES.
WE URGE VISIT OF 6 EXPERTS BEGINNING MARCH 23 (FIRST CHOICE)
OR MARCH 30 (SECOND CHOICE) FOR TWO WEEKS.

INFORMATION ON PROPOSED US FLUID FLOW AND HEAT TRANSFER EXPERTS:

MR. BASCOM WAYNE BIRMINGHAM; BORN JUNE 20, 1925; GRAND ISLAND,
NEBRASKA; DEPUTY DIRECTOR OF THE INSTITUTE FOR BASIC STANDARDS
OF THE NATIONAL BUREAU OF STANDARDS AND DIRECTOR OF ALL NBS
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LABORATORIES IN BOULDER, COLORADO.

DR. MICHAEL CHRISTOPHER JONES; BORN JANUARY 3, 1934; BIRMINGHAM, ENGLAND (NATURALIZED US CITIZEN); STAFF ENGINEER, CRYOGENICS DIVISION, NBS-BOULDER (CRYOGENIC FLUID FLOW AND HEAT TRANSFER SPECIALIST).

DR. VINCENT DORSEY ARP; BORN MAY 9, 1930; GRASSVALLEY, CALIFORNIA; PHYSICIST, CRYOGENICS DIVISION, NBS-BOULDER (SPECIALIST IN PHYSICS OF HELIUM AND SUPERCONDUCTORS).

INFORMATION ON PROPOSED US HIGH VOLTAGE TECHNOLOGY EXPERTS:

DR. HUGH M. LONG; BORN JUNE 28, 1924; MONTGOMERY, ALABAMA; DEPARTMENT MANAGER, OAK RIDGE NATIONAL LABORATORY; OAK RIDGE, TENNESSEE.

MR. ALBERT CHARLES MULLER; BORN JUNE 28, 1925; NEW YORK CITY, NEW YORK; PHYSICS ASSOCIATE, BROOKHAVEN NATIONAL LABORATORY; UPTON, NEW YORK (SPECIALIST ON PHYSICAL CHARACTERISTICS OF DIELECTRIC MATERIALS FOR SUPERCONDUCTING CABLES).

DR. CHRISTOPHER NELSON KING; BORN DECEMBER 19, 1944; SACRAMENTO, CALIFORNIA; RESEARCH ASSOCIATE, STANFORD UNIVERSITY (SPECIALIST IN CRYOGENIC DIELECTRICS AND SUPERCONDUCTORS).

US EXPERTS WILL PRESENT REPORTS ON CURRENT CRYOGENIC DIELECTRIC AND FLUID FLOW WORK, DETAILS TO FOLLOW IN LETTER.

PROPOSED JOINT HIGH VOLTAGE EXPERIMENTS IN MOSCOW WILL BE OF INTEREST TO US EXPERTS. VISIT WOULD BE ENHANCED IF DISCUSSIONS ALSO INCLUDE SOVIET WORK ON BREAKDOWNS AND DIELECTRIC LOSSES IN SOLIDS AND HELIUM-IMPREGNATED DIELECTRICS. CAN VISITS ALSO BE ARRANGED TO OTHER SOVIET LABORATORIES INVOLVED IN SUCH WORK AND/OR DISCUSSIONS WITH THEIR EXPERTS ON THIS SUBJECT?

FLUID FLOW EXPERTS AGREE WITH GENERAL FEATURES OF PROPOSED VISIT BUT SUGGEST ADDITIONAL LABORATORY VISITS AND/OR DISCUSSIONS AS FOLLOWS:

1. KHARKOV - ACADEMICIAN VERKIN, DIRECTOR OF THE PHYSICO-TECHNICAL UNCLASSIFIED

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INSTITUTE FOR LOW TEMPERATURES, DISCUSSED FLUID HEAT TRANSFER STUDIES WITH POTENTIAL APPLICATION TO SUPERCONDUCTING CABLES DURING RECENT NBS VISIT.

2. WORK ON HELIUM FORCED FLOW IN LARGE MAGNETS BY DR. DILIMENKO'S GROUP AT KURCHATOV ATOMIC ENERGY INSTITUTE.

3. DISCUSSIONS WITH DR. GORBACHEV AND HIS COLLEAGUES ON FLUID

FLOW AND HEAT TRANSFER PROBLEMS IN REFRIDGERATORS FOR SUPER-
CONDUCTING CABLES.

WOULD APPRECIATE MAXIMUM POSSIBLE IMPLEMENTATION OF THESE
SUGGESTIONS. PLEASE ADVISE PROPOSED DETAILS OF RECEIVING SIDE
PAYS ARRANGEMENT FOR THIS VISIT (E.G. TRAVEL WITHIN USSR AND
PER DIEM).

ADDITIONAL INFORMATION ON PROPOSED JOINT EXPERIMENTS AT KRZHIZHAN-
OVSKY WOULD BE HELPFUL.

IS IT POSSIBLE TO HAVE WIVES (2 OR 3) ACCOMPANY EXPERTS IF
COSTS OF WIVES VISIT PAID BY EXPERTS? KISSINGER

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